

BEFORE THE  
**Federal Communications Commission**

WASHINGTON, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
 OFFICE OF THE SECRETARY

In the Matter of )  
 )  
 Replacement of Part 90 by Part )  
 88 to Revise the Private Land )  
 Mobile Radio Service and Modify )  
 The Policies Governing Them )

PR Docket 92-235

To: The Commission

**REPLY COMMENTS OF THE ACADEMY OF MODEL AERONAUTICS**

The Academy of Model Aeronautics, Inc. ("Academy"), by its counsel and pursuant to Section 1.415 of the Commission's rules, submits these reply comments in the above-captioned proceeding. There is substantial agreement on the part of the manufacturers of radio control ("R/C") equipment and the modelers who use this equipment to control model airplanes, boats and wheeled vehicles, that the Commission's proposal would have a serious adverse impact upon the R/C industry. Constructive suggestions are offered to mitigate or avert altogether the needless and counterproductive aspects of the Commission's channel splitting proposals. The Academy would welcome the opportunity to discuss the implementation of these

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suggestions in a meeting with the Bureau and the equipment manufacturers.

1. The serious adverse impact on the R/C Radio Service (Part 95, Subparts C and E of the Commission's rules) that will result from the Commission's proposals in the present proceeding is due to two factors: placing proposed land mobile channels only 2.5 kHz away from R/C channels (proposed rule 88.907(d)), and permitting land mobile equipment to operate with a frequency stability of 50 parts per million (proposed rule 88.425(a), Table C-2). Both the Academy, in its comments filed May 10, 1993, at 9,15 and 17 and the Radio Control Manufacturers Association ("RCMA"), in its comments filed May 28, 1993, at 2,5 and 11, have identified these two technical proposals as the source of the adverse impact. Under these rules, taken together, the signal of a land mobile transmitter would be permitted to completely blanket, and therefore override, the signal of an R/C transmitter, causing a loss of control of the model by its operator.

#### Frequency Stability

2. While the R/C Radio Service is secondary in the 72-76 MHz band, it should not be subjected to problems that

result from what can only be called sloppy engineering. The R/C equipment, a consumer item, must meet a frequency stability standard of 20 parts per million (See, §95.623(c)). Land mobile equipment, which is commercial, should be held to no less a standard.

#### Channel Separation

3. Even if the land mobile frequency stability requirement were improved, it would still not alleviate the interference that will result from R/C channels being only 2.5 kHz removed from land mobile channels, as opposed to the present 10 kHz channel separation. In its Comments, at 2 and 10, RCMA suggests that the Commission should set aside channels, either in the 72-76 MHz band or elsewhere, where R/C use would be primary. The Academy would support such an approach, since it would afford the R/C Service the protection it requires in order to maintain a safe and economical operating environment.

4. If the Commission cannot see its way clear to dedicate a band for R/C use, there are modifications that could be made to the Commission's proposals in this proceeding that would mitigate the adverse effects of channel splitting. As the Academy pointed out in its

comments at page 17, 31 frequencies at 72 MHz and 10 frequencies at 75 MHz are adversely impacted by a proposed land mobile channel on at least one side of the frequency. One solution, therefore, is simply not to establish the land mobile channel or channels that would be adjacent to (that is, within 10 kHz of) the R/C channels. In this way, channel splitting generally could proceed in the band, without impacting the R/C Service, where narrowbanding has already been accomplished (See the Academy's comments at 5 and 6; and RCMA's comments at 6 and 7).

5. Alternatively, the adjacent land mobile channels could be established, but held in reserve, so that their use would only be permitted through a future rule making proceeding, initiated upon a preliminary showing of sufficient demand. In this regard, RCMA, in its comments at 11, has asked the Commission for a ten-year period within which to develop equipment that would operate reliably at 7.5 kHz separation in the 72 MHz band. The concept of this developmental period blends well with the concept of a period during which the use of adjacent land mobile frequencies (within 10 kHz of an R/C channel) would be held in abeyance.

6. At minimum, relief could be afforded to the R/C service by restricting the land mobile use in the band to low power and confined locales, such as factories and campuses, as suggested by RCMA at 11. In this way, the danger at a flying site or other modeling location from the random appearance of a land mobile unit would be reduced. Another form of this relief would be to restrict only the adjacent land mobile frequencies, that is, those within 10 kHz of an R/C channel, to such low power, confined locale use.

#### Consumer Advisory

7. The R/C Radio Service is a consumer service. Although the present rule making does not directly deal with the R/C Radio Service, it will have an undeniable impact on that service. RCMA, in its comments at 11, urges the Commission to issue a consumer advisory regarding any changes that might be adopted in this proceeding. The Academy, in its comments at 13 and 14, expressed the similar opinion that the Commission has a special obligation in this proceeding to take into account the fact that its actions will have a serious impact on millions of unsuspecting R/C

technical terms, to the effect of the new rules on R/C modeling and the steps that can be taken to cope with the new operating environment.

8. Similarly, as urged by the Academy's comments at 8, reference to R/C activity in the 72-76 MHz band should be included in the Part 88 service rules. Reference to the R/C channels should be made as well in the Combined Frequency List, found at proposed rule 88.1501, so that frequency coordinators can take R/C modeling activity into account when recommending land mobile frequencies for assignment. Ideally, land mobile frequencies appearing in this table that are within 10 kHz of an R/C frequency would be accompanied by a limitation that the frequency is not presently available for assignment (see paragraph 5, above) or that the frequency is available only for low power, confined use (see paragraph 6, above).

#### Further Discussions

9. As a community that is now reaping the benefits of narrowbanding, in terms of increased usability of all the allocated channels, the R/C community stands ready to assist the Commission with narrowbanding in the land mobile radio service by discussing ways in which such narrowbanding can

be accomplished without needlessly undoing the progress that has been achieved in the R/C Radio Service. Our ideas for such mutual cooperation are expressed above and we are open to others. The Academy hopes to participate in further discussions that would include Private Radio Bureau officials and representatives of the RCMA, which would produce a workable plan for the 72-76 MHz band.

Respectfully submitted,

ACADEMY OF MODEL AERONAUTICS, INC.

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